

REMARKS

Claim Amendments

Applicants have canceled claims 1-4 and have added new claims 24-27 to simplify and clarify the claimed subject matter. For the same reason, Applicants have amended claims 5-9, 11-14, and 23.

New claims 24 and 26 correspond to original claims 1 and 3, respectively. Applicants have redrafted claims 25 and 27 to make them dependent from claims 24 and 26, respectively. Claim 24 recites a specific method for detecting a biochemical reactant using a loop-structured nucleic acid probe modified with a label. Claim 25 recites the method of claim 24 and further comprises modifying with a label the biochemical specimen and/or the loop-structured nucleic acid probe. Claim 26 recites a specific method for detecting a biochemical reactant using a loop-structured nucleic acid probe wherein a biochemical specimen is pre-modified with a label. Claim 27 recites the method of claim 26 and further comprises modifying with a label the biochemical specimen and/or the loop-structured nucleic acid probe.

Claim 23 has been amended according to the Examiner's suggestion.

§ 112, second paragraph rejection

Claims 1-9, 11-14, and 23 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite.

Applicants respectfully submit that the amendments have overcome the rejection with respect to all claims. Reconsideration of the rejection is respectfully requested.

§103 obviousness rejection

Claims 1-9, 11-14, and 23 stand rejected under 35 U.S.C. §103 as allegedly being obvious over WO 1999/31275 (Gold et al) in view of U.S. Patent 6,264,825 (Blackburn et al). Applicants respectfully traverse the rejection.

The Examiner contends that it would have been obvious to combine the hairpin probes of Gold et al with the detection method of Blackburn et al. First, there is no reason for a skilled artisan to combine these references. Gold et al already reveals an adequate method of detecting the ligand binding by electronic means. Accordingly, there is no reason for a skilled artisan to turn to another reference teaching binding acceleration techniques.

Further, even if combined, the references do not render the invention obvious; especially in view of the amendments. Blackburn et al do not teach the use of magnetic particles, ceramic fine particles or semiconductors as labels. Applicants submit that the use of these particles is not obvious over Gold et al in view of Blackburn et al.

Further, Gold does not suggest the specific positioning of the loop-structured nucleic acid probe as required in independent claims 24 and 26. Specifically, Applicants respectfully submit that Gold does not give any reason to position a free end of the probe so that it is not fixed to the surface of the substrate. Moreover, there is no suggestion at all that a principal part of the loop-structured nucleic acid probe which binds complementarily with a biochemical specimen is located on the substrate side on or near the surface of the substrate, as required by independent claims 24 and 26.

Thus, there is not even a *prima facie* case of obviousness under these circumstances.

Response to Office Action date November 13, 2007

Date of Mailing: March 13, 2008

Serial No. 10/516,553

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

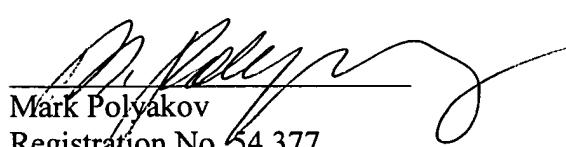
Conclusion

Applicants respectfully submit that all currently pending claims are patentable over the cited art. Accordingly, reconsideration of the rejections and allowance of the case are requested.

Should the Examiner have any questions concerning the above, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below. If the Examiner notes any matters which the Examiner believes may be expedited by a telephone interview, the Examiner is requested to contact the undersigned.

Respectfully submitted,

Wood, Phillips, Katz, Clark & Mortimer
500 West Madison Street
Suite 3800
Chicago, IL 60661-4592
Tel.: (312) 876-2110
Fax.: (312) 876-2020


Mark Polyakov
Registration No. 54,377
Attorney for Applicants


John S. Mortimer
Registration No. 30,407
Attorney for Applicants